

### AMENDMENTS TO THE CLAIMS

1. **(Original)** An isolated population of CD4<sup>+</sup> T-cells wherein the population is selected from:  
CMRF-35<sup>++</sup> CD45RO<sup>+</sup>;  
CMRF-35<sup>+</sup> CD45RO<sup>+</sup>;  
CMRF-35<sup>-</sup> CD45RO<sup>+</sup>;  
CMRF-35<sup>+</sup> CD45RO<sup>-</sup>; and  
CMRF-35<sup>-</sup> CD45RO<sup>-</sup> T-cells.
2. **(Original)** The isolated population of CD4<sup>+</sup> T-cells of Claim 1 wherein the cells are from a mammalian subject.
3. **(Original)** The isolated population of CD4<sup>+</sup> T-cells of Claim 2 wherein the mammal is a human.
4. **(Original)** The isolated population of CD4<sup>+</sup> T-cells of Claim 2 wherein the cells are CMRF-35<sup>++</sup> CD45RO<sup>+</sup> cells.
5. **(Original)** The isolated population of CD4<sup>+</sup> T-cells of Claim 2 wherein the cells are CMRF-35<sup>+</sup> CD45RO<sup>+</sup> cells.
6. **(Original)** The isolated population of CD4<sup>+</sup> T-cells of Claim 2 wherein the cells are CMRF-35<sup>-</sup> CD45RO<sup>+</sup> cells.
7. **(Original)** The isolated population of CD4<sup>+</sup> T-cells of Claim 2 wherein the cells are CMRF-35<sup>+</sup> CD45RO<sup>-</sup> cells.
8. **(Original)** The isolated population of CD4<sup>+</sup> T-cells of claim 2 wherein the cells are CMRF-35<sup>-</sup> CD45RO<sup>-</sup> cells.
9. **(Currently amended)** The isolated population of CD4<sup>+</sup> T-cells of Claim 1 ~~or 2 or~~ 3 wherein the cells are derived from a subject with an inflammatory condition.
10. **(Original)** The isolated population of CD4<sup>+</sup> T-cells of Claim 9 wherein the inflammatory condition is psoriasis.
11. **(Currently amended)** The isolated population of CD4<sup>+</sup> T-cells of Claim 1 ~~or 2 or~~ 3 wherein the cells are derived from a subject with diabetes.
12. **(Currently amended)** The isolated population of CD4<sup>+</sup> T-cells of Claim 1 ~~or 2 or~~ 3 wherein the cells are derived from a subject with cancer.

13. **(Currently amended)** The isolated population of CD4<sup>+</sup> T-cells of Claim 1 ~~or 2 or~~  
3 wherein the cells are derived from a subject with arthritis.

14. **(Currently amended)** The isolated population of CD4<sup>+</sup> T-cells of Claim 1 ~~or 2 or~~  
3 wherein the cells are derived from a subject with an autoimmune disease.

15. **(Currently amended)** The isolated population of CD4<sup>+</sup> T-cells of Claim 1 ~~or 2 or~~  
3 wherein the cells are derived from a subject with graft versus host disease.

16. **(Original)** An isolated CD4<sup>+</sup> T-cell wherein the cell is CMRF-35<sup>++</sup> CD45RO<sup>+</sup>.

17. **(Original)** An isolated CD4<sup>+</sup> T-cell wherein the cell is CMRF-35<sup>+</sup> CD45RO<sup>+</sup>.

18. **(Original)** An isolated CD4<sup>+</sup> T-cell wherein the cell is CMRF-35<sup>-</sup> CD45RO<sup>+</sup>.

19. **(Original)** An isolated CD4<sup>+</sup> T-cell wherein the cell is CMRF-35<sup>+</sup> CD45RO<sup>-</sup>.

20. **(Original)** An isolated CD4<sup>+</sup> T-cell wherein the cell is CMRF-35<sup>-</sup> CD45RO<sup>-</sup>.

21. **(Original)** A method for assessing the immunological potential of a subject said method comprising obtaining a sample from said subject comprising T-cells and subjecting the sample to cell surface discrimination means to determine the presence, absence or level of CD4<sup>+</sup> T-cells selected from the list consisting of:

CMRF-35<sup>++</sup> CD45RO<sup>+</sup>;

CMRF-35<sup>+</sup> CD45RO<sup>+</sup>;

CMRF-35<sup>-</sup> CD45RO<sup>+</sup>;

CMRF-35<sup>+</sup> CD45RO<sup>-</sup>; and

CMRF-35<sup>-</sup> CD45RO<sup>-</sup> T-cells.

22. **(Original)** The method of Claim 21 wherein the subject is a mammal.

23. **(Original)** The method of Claim 22 wherein the mammal is a human.

24. **(Original)** The method of Claim 23 wherein the subject is depleted of or has an increased number of CMRF-35<sup>++</sup> CD45RO<sup>+</sup> T-cells.

25. **(Original)** The method of Claim 23 wherein the subject is depleted of or has an increased number of CMRF-35<sup>+</sup> CD45RO<sup>+</sup> T-cells.

26. **(Original)** The method of Claim 23 wherein the subject is depleted of or has an increased number of CMRF-35<sup>-</sup> CD45RO<sup>+</sup> T-cells.

27. **(Original)** The method of Claim 23 wherein the subject is depleted of or has an increased number of CMRF-35<sup>+</sup> CD45RO<sup>-</sup> T-cells.

28. **(Original)** The method of Claim 23 wherein the subject is depleted of or has an increased number of CMRF-35<sup>-</sup> CD45RO<sup>-</sup> T-cells.

29. **(Original)** The method of Claim 23 wherein the subject has an autoimmune disease.

30. **(Original)** The method of Claim 29 wherein the autoimmune disease is diabetes.

31. **(Original)** The method of Claim 23 wherein the subject has an inflammatory condition.

32. **(Original)** The method of Claim 31 wherein the inflammatory condition is psoriasis.

33. **(Original)** The method of Claim 31 wherein the inflammatory condition is arthritis.

34. **(Currently amended)** A computer program product ~~therefore~~, for assessing the presence or absence or level of a sub-population of CD4<sup>+</sup> T-cells said product comprising:

(i) code that receives, as input values, the identity of a reporter molecule associated with a labeled antibody which recognizes one of a CMRF-35 epitope or CD45RO marker;

(ii) code that compares said input values with reference values to determine the level of CMRF-35 epitope or CD45RO; and

(iii) a computer readable medium that stores the codes.

35. **(Original)** A computer for assessing the presence or absence or level of a sub-population of CD4<sup>+</sup> T-cells, said computer comprises:

(i) a machine-readable data storage medium comprising a data storage material encoded with machine-readable data, wherein said machine-readable data comprise input values which identify a reporter molecule associated with a labeled antibody which recognizes one of a CMRF-35 antibody or CD45RO marker;

(ii) a working memory for storing instructions for processing said machine-readable data;

(iii) a central-processing unit coupled to said working memory and to said machine readable data storage medium, for processing said machine readable data to

PCT. Appl. No. : PCT/AU2004/001493  
Filed : October 28, 2004

compare said values to provide an assessment of the identity or level of CMRF-35 epitope or CD45RO; and

(iv) an output hardware coupled to said central processing unit, for receiving the results of the comparison.

36. **(Currently amended)** The isolated population of CD4<sup>+</sup> T cells of ~~any one of~~ claims 1-4 and 9-16, wherein said CD4<sup>+</sup> T-cells are CMRF-35<sup>++</sup> CD45RO<sup>+</sup> CXCR3<sup>+</sup> T cells.

37. **(Currently amended)** The method of ~~any one of~~ claims 21-24 and 29-35, wherein said CD4<sup>+</sup> T cells are CMRF-35<sup>++</sup> CD45RO<sup>+</sup> CXCR3<sup>+</sup> T cells.